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Simulation and Monitoring of a Photovoltaic Power System via LabVIEW and SQL database

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INDIANA-PURDUE UNIVSERISTY FORT WAYNE

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Abstract

This paper presents the results of a project in which a system was programmed in National Instruments LabVIEW for the purpose of simulation and monitoring of a photovoltaic power system. For simulation, it uses a generalized photovoltaic model which was modified to be representative of the solar conditions near Fort Wayne, Indiana. Portions of the project could easily be implemented for other LabVIEW applications which could involve, but are not limited to, solar power simulation, power monitoring systems, and various other applications in which communication with a SQL database is desired.

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